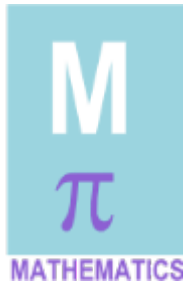


# STEM/STEAM & The Movies Math



MATH	FILM(S) REFERENCED	CONCEPTS
<a href="#">Movies Through A Mathematical Lens</a> <a href="#">What type of math is involved in Pixar animation?</a>	Superman II Despicable Me Inside/Out	Acceleration Estimation Many (see article)
<a href="#">Math in Special Effects</a>	Music video	Algebra, Distance, Light Intensity, Exposure (photography)
<a href="#">Film Aspect Ratio</a> Related <a href="#">video</a>	Captain America: Winter Solider; Citizen Kane; Ben Hur; A Serious Man; Oz: The Great And The Powerful; The Grand Budapest Hotel; Oliver; The Dark Knight	Aspect ratio
<a href="#">Jumping Out of Windows</a> (stunts)		measuring, multiplication, division, and remainders
<a href="#">Math in the Film Industry</a>		trigonometry, algebra, integral calculus, subdivision surfaces, division, geometry, and harmonic coordinates
<a href="#">How One Visual Effects Director Uses Math</a>	Harry Potter, Sweeny Todd, Prince of Persia, GI Joe	fluid modeling, gravity, viscosity, voxels, density, 3D geometry
<a href="#">A Math Breakdown of Cinematography of "There Will Be Blood"</a> Related <a href="#">article</a>	There Will Be Blood	Geometry
<a href="#">Math Goes Movies</a>	Jurrasic Park, Lord of the Rings	polygons, triangles, ray tracing, vectors, caustics, precomputed radiance transfer, radiosity

<a href="#">Film Lighting &amp; Math</a>		multiplication, angles, measurements, division, skip counting
<a href="#">Geometry of Lenses</a> (Lesson plan)		geometry, areas, ratios, and square roots
<a href="#">Math Algorithm Claims to Predict Film's Success</a>		algorithm
<a href="#">Pixar combines math to make its movies</a> related <a href="#">video</a>	The Incredibles Ratatouille Finding Nemo	algebra, geometry , calculus
<a href="#">Pixar Sr. Scientist Explains Math of Movies</a> related <a href="#">video</a>	Cars 2, Brave, Geri's Game	arithmetic, algebra, geometry, polygons, calculus, combinatronics, light, fluid, gases, compression algorithm, parabolas
<a href="#">Ryan Kavanugh Uses Math To Make Movies</a>	Batman, Zombieland, Charlie Wilson's War, Paul Blart: Mall Cop, Season of the Witch, The Perfect Getaway, Matrix, Waterworld, Jesse James, The Fighter, Evan Almighty, Bruce Almighty, Land of the Lost, Brothers, Somewhere in Time, Titanic	variables
<a href="#">Box Office Math</a> (lesson plan)		Calculations, measures, box plots (both modified and non-modified), histograms, and stem-and-leaf plots.
<a href="#">Independent Filmmakers Talk Math</a>		Calculations
<a href="#">The Croods &amp; Math</a>		Coding, effects tools, process control, fluid dynamics, Cloud computing
<a href="#">What is the average budget for a Hollywood movie?</a>	The Brothers McMullen, Avatar, Pirates of the Caribbean	